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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/568,655

08/31/2006

Kenneth Martin Taylor

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SEED INTELLECTUAL PROPERTY LAW GROUP PLLC

701 FIFTH AVE

SUITE 5400

SEATTLE, WA 98104

EXAMINER

NWAONICHA, CHUKWUMA O

ART UNIT

PAPER NUMBER

1621

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/568,655	Applicant(s) TAYLOR ET AL.	
	Examiner CHUKWUMA O. NWAONICHA	Art Unit 1621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 120-193 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 120-193 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>01/06/2009</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Current Status

1. This action is responsive to Applicants' amendment of 22 December 2008.
2. Receipt and entry of Applicants' amendment is acknowledged.
3. Claims 120-193 are pending.
4. The allowability of claims 188-191 is withdrawn in favor of the current rejection.
5. The 112 rejections, second paragraph and first paragraph are withdrawn following Applicants amendments.
6. The 102 rejections are withdrawn following Applicants amendments.
7. The nonstatutory obviousness-type double rejection of claims 120-185, 192 and 193 as being unpatentable over claims 1-10 of U.S. 7,232,809 is maintained for the reasons stated in the previous Office Action.

Applicants' argument and amendments filed 22 December 2008 have been fully considered but they are not persuasive because Applicants claimed disclose a chemically stable antioxidant compound, its pharmaceutical composition, a method of reducing oxidative stress in a cell with a chemically stable antioxidant compound are obvious in view of the prior art references cited. Specifically, Applicants claim a compound wherein the anion is selected from the group consisting of an alkyl sulfonate, an aryl sulfonate, tetrafluoroborate, trifluoromethanesulfonate, hexafluoroantimonate, hexafluoroarsenate, hexafluorophosphate, tetraphenylborate, and tetra(perfluorophenyl)borate while Murphy et al. claim a compound wherein the variable

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Z is an anion. The difference does not constitute a patentable distinction **absent** a showing of criticality.

8. The nonstatutory obviousness-type double rejection of claims 120-185 and 192 as being unpatentable over claims 120, 122-128 and 130-133 of copending Application No. 11/355,518 in view of Taylor et al. and claims 88-112 of copending Application No. 10/568,654 is maintained for the reasons stated in the previous Office Action.

Applicants' argument and amendments filed 22 December 2008 have been fully considered but they are not persuasive because Applicants claimed disclose a chemically stable antioxidant compound, its pharmaceutical composition, a method of reducing oxidative stress in a cell with a chemically stable antioxidant compound are obvious in view of the prior art references cited. Specifically, Applicants claim a compound wherein the anion is selected from the group consisting of an alkyl sulfonate, an aryl sulfonate, tetrafluoroborate, trifluoromethanesulfonate, hexafluoroantimonate, hexafluoroarsenate, hexafluorophosphate, tetraphenylborate, and tetra(perfluorophenyl)borate while Murphy et al. claim a compound wherein the variable Z is an anion or a salt forming anion. The difference does not constitute a patentable distinction **absent** a showing of criticality.

9. The rejection of claim 134 is rejected under 35 U.S.C. 101 as claiming the same invention as that of claim 134 of Application No. 11/355,518 is maintained for the reasons stated in the previous Office Action.

Applicants' argument and amendments filed 22 December 2008 have been fully considered but they are not persuasive because Applicants claimed disclose a

chemically stable antioxidant compound is anticipated by claim 134 of Application No. 11/355,518. Applicants claim still reads on claim 134 of Application No. 11/355,518.

Claim Objection

Claim 132 and 143 are objected because it is not clear what Applicants are claiming by the recitation: C of I_n". Clarification is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 120-193 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murphy et al., {U.S. 6,331,532}.

Applicants claim a chemically stable antioxidant compound, its pharmaceutical composition and its use for treating oxidative stress; wherein all the variables are as defined in the claims.

Determination of the scope and content of the prior art (M.P.E.P. §2141.01)

Murphy et al. teach mitochondrially targeted antioxidant compound. The compound comprises a lipophilic cation covalently coupled to an antioxidant moiety; wherein the lipophilic cation is the triphenyl phosphonium cation, and the compound is of the formula $P(Ph_3)^+XR:Z^-$ where X is a linking group, Z is an anion and R is an antioxidant moiety. Murphy et al. teach pharmaceutical compositions containing the mitochondrially targeted antioxidant compounds, and methods of therapy or prophylaxis of patients who would benefit from reduced oxidative stress, which comprise the step of administering the compounds of the invention. See columns 1-3 and the claims.

Ascertainment of the difference between the prior art and the claims (M.P.E.P.. §2141.02)

Applicants claimed chemically stable antioxidant compound, its pharmaceutical composition and its use for treating oxidative stress differ from the compounds taught by Murphy et al. in that Applicants claimed compound is narrower in scope than those compounds taught by the prior art reference cited. Specifically, Applicants claim a compound wherein the anion is selected from the group consisting of an alkyl sulfonate, an aryl sulfonate, tetrafluoroborate, trifluoromethanesulfonate, hexafluoroantimonate, hexafluoroarsenate, hexafluorophosphate, tetraphenylborate, and tetra(perfluorophenyl)borate while Murphy et al. teach a compound wherein the variable Z is an anion.

Finding of prima facie obviousness--rational and motivation (M.P.E.P.. §2142-2143)

The instantly claimed chemically stable antioxidant compound, its pharmaceutical composition and its use for treating oxidative stress would have been suggested to one of ordinary skill in view of the teachings of the prior art reference cited.

Based on the teaching of Murphy et al., one of ordinary skill in the art would have a reasonable expectation of success in producing a chemically stable antioxidant compound, its pharmaceutical composition and its use for treating oxidative stress by evaluating different compounds employed as an that are commercially available to produce a chemically stable antioxidant compound of choice, its pharmaceutical composition and its use for treating oxidative stress. Said person would have been motivated to practice the teaching of the reference cited because it demonstrates that the compounds are useful in pharmaceutical applications. The instantly claimed invention would therefore have been obvious to one of ordinary skill in the art.

Applicants' amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chukwuma O. Nwaonicha whose telephone number is 571-272-2908. The examiner can normally be reached on Monday thru Friday, 8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Sullivan can be reached on 571-272-0779. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Chukwuma O. Nwaonicha/
Examiner, Art Unit 1621

/Jafar Parsa/
Primary Examiner, Art Unit 1621